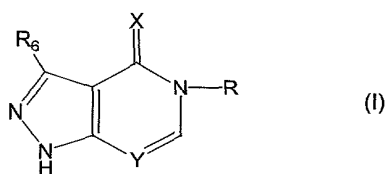


WHAT IS CLAIMED IS:

1. A compound represented by the formula I:



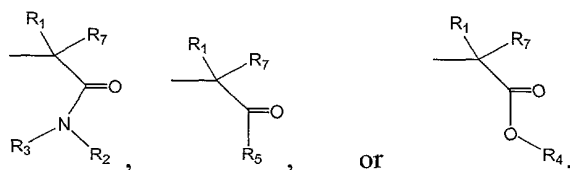
5 wherein:

X is O or S;

Y is N or CH;

R₆ is H or OH; and

R is



wherein:

R₁ is hydrogen or an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-

R_d , NR_c-CS-R_d , $-SH$, $-S-R_b$, and $-PO_2-OR_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-CO-R_c$, $-CO-OR_c$, $-O-CO-O-R_c$, $-O-CO-R_c$, $-NR_c-CO-R_d$, $-CO-NR_dR_e$, $-OH$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-COR_f$, $-COOR_f$, $-O-CO-O-R_f$, $-O-CO-R_f$, $-OH$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-CN$, $-(CH_2)_z-CN$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-OH$, $=O$, $-N-OH$, $-N-OR_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-CO-OR_c$, $-CO-R_c$, $-NR_c-CO-NR_dR_e$, $-C-CO-OR_c$, $-NR_c-CO-R_d$, $-O-CO-O-R_c$, $O-CO-NR_dR_e$, $-SH$, $-O-R_b$, $-O-R_a-O-$, $-S-R_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;

R_2 and R_3 are each independently hydrogen or an alkyl, alkenyl, alkoxy, aryl, heteroaryl, cycloalkyl, or heterocycloalkyl group, or R_2 and R_3 together with the N atom to which they are attached form a 4- to 10-membered heterocycloalkyl or heteroaryl group containing at least one N, S or O heteroatom, where the alkyl, alkenyl, alkoxy, aryl, heteroaryl, cycloalkyl, or heterocycloalkyl group is unsubstituted or substituted with one or more substituents

independently selected from the group consisting of alkyl,
heteroalkyl, haloalkyl, haloaryl, halocycloalkyl,
haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl,
heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z
5 is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -
CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-
R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e,
- O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-
OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-
10 CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -
NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-
R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -
O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-
NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -
15 S-R_b, and -PO₂-OR_c, where R_a is selected from the group
consisting of alkyl, heteroalkyl, alkenyl, and alkynyl, R_b is
selected from the group consisting of alkyl, heteroalkyl,
haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-
R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar,
20 heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and
R_e are each independently selected from the group
consisting of hydrogen, alkyl, heteroalkyl, haloalkyl,
alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f,
-OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl,
25 where R_d and R_e can cyclize to form a heteroaryl or
heterocycloalkyl group, and R_f is selected from the group
consisting of hydrogen, alkyl, and heteroalkyl, and where
any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl,
heterocycloalkyl, or heteroaryl moieties present in the
30 above substituents may be further substituted with one or
more substituents independently selected from the group
consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer
from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH,
N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-

NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-
NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted
alkyl, unsubstituted aryl, unsubstituted cycloalkyl,
unsubstituted heterocycloalkyl, and unsubstituted
heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;

R₄ is hydrogen or an alkyl, alkenyl, cycloalkyl,
heterocycloalkyl, aryl or heteroaryl group unsubstituted or
substituted with one or more substituents independently
selected from the group consisting of alkyl, heteroalkyl,
haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl,
aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-
OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0
to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -
CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S,
SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -
NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-
CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-
CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d,
NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -
CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c,
O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-
CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -
PO₂-OR_c, where R_a is selected from the group consisting of
alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b
is selected from the group consisting of alkyl, heteroalkyl,
haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-
R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar,
heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and
R_e are each independently selected from the group
consisting of hydrogen, alkyl, heteroalkyl, haloalkyl,
alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f,
-OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl,
where R_d and R_e can cyclize to form a heteroaryl or
heterocycloalkyl group, and R_f is selected from the group

consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;

R₅ is hydrogen or an alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c,

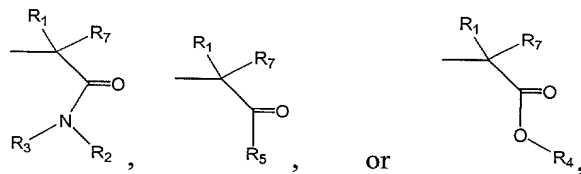
-CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above; and

R₇ is hydrogen or a C₁-C₃ alkyl, hydroxy or C₁-C₃ alkoxy group;

or a pharmaceutically acceptable salt, a pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite of said compound, or a pharmaceutically acceptable salt of said metabolite.

2. A compound or pharmaceutically acceptable salt according to claim 1, wherein:

R is



wherein:

R_1 is an aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted

heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;

5 R_2 and R_3 are each independently hydrogen or an alkyl, alkenyl, alkoxy, aryl, heteroaryl, cycloalkyl, or heterocycloalkyl group, or R_2 and R_3 together with the N atom to which they are attached form a 4- to 10-membered heterocycloalkyl or heteroaryl group containing at least one N, S or O heteroatom, where the alkyl, alkenyl, alkoxy, aryl, heteroaryl, cycloalkyl, or heterocycloalkyl group is unsubstituted or substituted with one or
10 more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-NO_2$, $-N-OH$, $N-OR_c$, $-CN$, $-(CH_2)_z-CN$ where z is an integer from 0 to 4, halogen, $-OH$, $-O-R_a-O-$, $-OR_b$, $-CO-R_c$, $O-CO-R_c$, $-CO-OR_c$, $-O-CO-OR_c$, $-O-CO-O-CO-R_c$, $-O-OR_c$, $=O$, $=S$, SO_2-R_c , $-SO-R_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-O-CO-NR_dR_e$, $-NR_c-CO-NR_dR_e$, $-NR_c-CO-R_e$, $NR_c-CO-OR_e$, $-CO-NR_c-CO-R_d$, $-O-SO_2-R_c$, $-O-SO-R_c$, $-O-S-R_c$, $-S-CO-R_c$, $-SO-CO-OR_c$, $-SO_2-CO-OR_c$, $-O-SO_3$, $-NR_c-SR_d$, $-NR_c-SO-R_d$, $NR_c-SO_2-R_d$, $-CO-SR_c$, $-CO-SO-R_c$, $CO-SO_2-R_c$, $-CS-R_c$, $-CSO-R_c$, $-CSO_2-R_c$, $-NR_c-CS-R_d$, $-O-CS-R_c$, $-O-CSO-R_c$, $O-CSO_2-R_c$, $-SO_2-NR_dR_e$, $-SO-NR_dR_e$, $-S-NR_dR_e$, $-NR_d-CSO_2-R_d$, $-NR_c-CSO-R_d$, NR_c-CS-R_d , $-SH$, $-S-R_b$, and $-PO_2-OR_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, and alkynyl, R_b is selected from the group
25 consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-CO-R_c$, $-CO-OR_c$, $-O-CO-O-R_c$, $-O-CO-R_c$, $-NR_c-CO-R_d$, $-CO-NR_dR_e$, $-OH$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-COR_f$, $-COOR_f$, $-O-CO-O-R_f$, $-O-CO-R_f$, $-OH$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the
30 group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl,

heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;

R₄ is hydrogen or an alkyl, alkenyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and

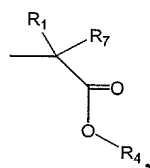
heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N}-\text{OH}$, $-\text{N}-\text{OR}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{OR}_c$, $-\text{CO}-\text{R}_c$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{C}-\text{CO}-\text{OR}_c$, $-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{CO}-\text{O}-\text{R}_c$, $\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{SH}$, $-\text{O}-\text{R}_b$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{S}-\text{R}_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;

R_5 is hydrogen or an alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N}-\text{OH}$, $-\text{N}-\text{OR}_c$, $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{OR}_b$, $-\text{CO}-\text{R}_c$, $\text{O}-\text{CO}-\text{R}_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-\text{CO}-\text{R}_c$, $-\text{O}-\text{OR}_c$, $=\text{O}$, $=\text{S}$, SO_2-R_c , $-\text{SO}-\text{R}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{R}_e$, $\text{NR}_c-\text{CO}-\text{OR}_e$, $-\text{CO}-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{SO}_2-\text{R}_c$, $-\text{O}-\text{SO}-\text{R}_c$, $-\text{O}-\text{S}-\text{R}_c$, $-\text{S}-\text{CO}-\text{R}_c$, $-\text{SO}-\text{CO}-\text{OR}_c$, $-\text{SO}_2-\text{CO}-\text{OR}_c$, $-\text{O}-\text{SO}_3$, $-\text{NR}_c-\text{SR}_d$, $-\text{NR}_c-\text{SO}-\text{R}_d$, $\text{NR}_c-\text{SO}_2-\text{R}_d$, $-\text{CO}-\text{SR}_c$, $-\text{CO}-\text{SO}-\text{R}_c$, $\text{CO}-\text{SO}_2-\text{R}_c$, $-\text{CS}-\text{R}_c$, $-\text{CSO}-\text{R}_c$, $-\text{CSO}_2-\text{R}_c$, $-\text{NR}_c-\text{CS}-\text{R}_d$, $-\text{O}-\text{CS}-\text{R}_c$, $-\text{O}-\text{CSO}-\text{R}_c$, $\text{O}-\text{CSO}_2-\text{R}_c$, $-\text{SO}_2-\text{NR}_d\text{R}_e$, $-\text{SO}-\text{NR}_d\text{R}_e$, $-\text{S}-\text{NR}_d\text{R}_e$, $-\text{NR}_d-\text{CSO}_2-\text{R}_d$, $-\text{NR}_c-\text{CSO}-\text{R}_d$, $\text{NR}_c-\text{CS}-\text{R}_d$, $-\text{SH}$, $-\text{S}-\text{R}_b$, and $-\text{PO}_2-\text{OR}_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{CO}-\text{R}_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-\text{R}_c$, $-\text{O}-\text{CO}-\text{R}_c$, $-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{OH}$, Ar, heteroaryl,

heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O}-\text{CO}-\text{O}-\text{R}_f$, $-\text{O}-\text{CO}-\text{R}_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N}-\text{OH}$, $-\text{N}-\text{OR}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{OR}_c$, $-\text{CO}-\text{R}_c$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{C}-\text{CO}-\text{OR}_c$, $-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{CO}-\text{O}-\text{R}_c$, $\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{SH}$, $-\text{O}-\text{R}_b$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{S}-\text{R}_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above; and

R_7 is hydrogen or a C_1-C_3 alkyl, hydroxy or C_1-C_3 alkoxy group;

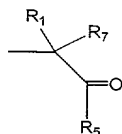
3. A compound or pharmaceutically acceptable salt according to claim 2, wherein R is



and wherein R_4 is hydrogen or an alkyl or cycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N}-\text{OH}$, $-\text{N}-\text{OR}_c$, $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{OR}_b$, $-\text{CO}-\text{R}_c$, $\text{O}-\text{CO}-\text{R}_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-\text{CO}-\text{R}_c$, $-\text{O}-\text{OR}_c$, $=\text{O}$, $=\text{S}$, SO_2-R_c , $-\text{SO}-\text{R}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{R}_e$, $\text{NR}_c-\text{CO}-\text{OR}_e$, $-\text{CO}-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{SO}_2-\text{R}_c$, $-\text{O}-\text{SO}-\text{R}_c$, $-\text{O}-\text{S}-\text{R}_c$, $-\text{S}-$

CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is
5 selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of
10 hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or
15 heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-
20 R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above.

4. A compound or pharmaceutically acceptable salt according to claim 2, wherein R is

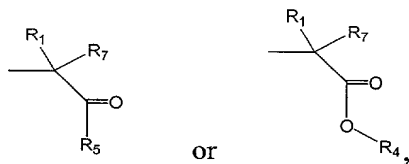


25 and wherein wherein R₅ is an alkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH,
30 N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c,

$=O, =S, SO_2-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -$
 $NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO_2-R_c, -O-SO-R_c, -O-S-R_c, -S-$
 $CO-R_c, -SO-CO-OR_c, -SO_2-CO-OR_c, -O-SO_3, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO_2-$
 $R_d, -CO-SR_c, -CO-SO-R_c, CO-SO_2-R_c, -CS-R_c, -CSO-R_c, -CSO_2-R_c, -NR_c-CS-R_d,$
 $5 -O-CS-R_c, -O-CSO-R_c, O-CSO_2-R_c, -SO_2-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-$
 $CSO_2-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, \text{ and } -PO_2-OR_c, \text{ where } R_a \text{ is}$
 $\text{selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl,}$
 $\text{and alkynyl, } R_b \text{ is selected from the group consisting of alkyl, heteroalkyl,}$
 $\text{haloalkyl, alkenyl, alkynyl, } -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-$
 $10 -CO-R_d, -CO-NR_dR_e, -OH, Ar, \text{ heteroaryl, heterocycloalkyl, and cycloalkyl, and}$
 $R_c, R_d \text{ and } R_e \text{ are each independently selected from the group consisting of}$
 $\text{hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, } -COR_f, -COOR_f, -O-CO-$
 $O-R_f, -O-CO-R_f, -OH, Ar, \text{ heteroaryl, cycloalkyl, and heterocycloalkyl, where } R_d$
 $\text{and } R_e \text{ can cyclize to form a heteroaryl or heterocycloalkyl group, and } R_f \text{ is}$
 $15 \text{ selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where}$
 $\text{any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or}$
 $\text{heteroaryl moieties present in the above substituents may be further substituted}$
 $\text{with one or more substituents independently selected from the group consisting of}$
 $NO_2, -CN, -(CH_2)_z-CN \text{ where } z \text{ is an integer from 0 to 4, halogen, haloalkyl,}$
 $20 \text{ haloaryl, } -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -$
 $NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-$
 $R_b, -O-R_a-O-, -S-R_b, \text{ and unsubstituted alkyl, unsubstituted aryl, unsubstituted}$
 $\text{cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where}$
 $R_a, R_b, R_c, R_d, \text{ and } R_e \text{ are defined above.}$

25 5. A compound or pharmaceutically acceptable salt according to
 claim 2, wherein R_7 is hydrogen.

6. A compound or pharmaceutically acceptable salt according to claim 2,
 wherein R is

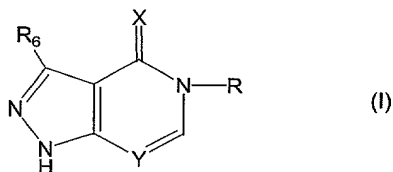


30 and wherein

R_4 is hydrogen or an alkyl or cycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂,
 5 -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c,
 -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e,
 -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-
 10 CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-
 CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-
 SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c,
 -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-
 CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where
 15 R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -
 O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently
 20 selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -
 OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected
 from the group consisting of hydrogen, alkyl, and heteroalkyl, and where
 25 any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further
 substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to
 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-
 30 NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d,
 -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl,
 unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b ,
 R_c , R_d , and R_e are defined above;

R₅ is an alkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂,
 5 -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c,
 -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_c, NR_c-CO-OR_e, -CO-NR_c-
 CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-
 10 CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c,
 -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-
 CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where
 R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl,
 15 heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -
 O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently
 selected from the group consisting of hydrogen, alkyl, heteroalkyl,
 20 haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -
 OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected
 from the group consisting of hydrogen, alkyl, and heteroalkyl, and where
 25 any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further
 substituted with one or more substituents independently selected from the
 group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to
 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-
 NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d,
 30 -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and
 unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl,
 unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b,
 R_c, R_d, and R_e are defined above; and
 R₇ is hydrogen.

7. A compound represented by the formula I:



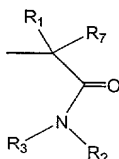
wherein:

X is O or S;

Y is N or CH;

R₆ is H or OH; and

R is



wherein:

R₁ is hydrogen or an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl,

alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{CO}-R_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-R_c$, $-\text{O}-\text{CO}-R_c$, $-\text{NR}_c-\text{CO}-R_d$, $-\text{CO}-\text{NR}_dR_e$, $-\text{OH}$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O}-\text{CO}-\text{O}-R_f$, $-\text{O}-\text{CO}-R_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N}-\text{OH}$, $-\text{N}-\text{OR}_c$, $-\text{NR}_dR_e$, $-\text{CO}-\text{NR}_dR_e$, $-\text{CO}-\text{OR}_c$, $-\text{CO}-R_c$, $-\text{NR}_c-\text{CO}-\text{NR}_dR_e$, $-\text{C}-\text{CO}-\text{OR}_c$, $-\text{NR}_c-\text{CO}-R_d$, $-\text{O}-\text{CO}-\text{O}-R_c$, $-\text{O}-\text{CO}-\text{NR}_dR_e$, $-\text{SH}$, $-\text{O}-R_b$, $-\text{O}-R_a-\text{O}-$, $-\text{S}-R_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;

R_7 is hydrogen, or a C_1-C_3 alkyl, hydroxy or C_1-C_3 alkoxy group; and

R_2 and R_3 are each independently hydrogen or an alkyl, alkenyl, alkoxy, aryl, heteroaryl, cycloalkyl, or heterocycloalkyl group, or R_2 and R_3 together with the N atom to which they are attached form a 4- to 10-membered heterocycloalkyl or heteroaryl group containing at least one N, S or O heteroatom, where the alkyl, alkenyl, alkoxy, aryl, heteroaryl, cycloalkyl, or heterocycloalkyl group is unsubstituted or substituted with one or more substituents

independently selected from the group consisting of alkyl,
heteroalkyl, haloalkyl, haloaryl, halocycloalkyl,
haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl,
heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is
an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c,
O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c,
=O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -
NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-
R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -
SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -
CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c,
-NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e,
-SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d,
NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected
from the group consisting of alkyl, heteroalkyl, alkenyl, aryl,
heteroaryl, and alkynyl, R_b is selected from the group
consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -
CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-
NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl,
and R_c, R_d and R_e are each independently selected from the
group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl,
alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -
OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d
and R_e can cyclize to form a heteroaryl or heterocycloalkyl
group, and R_f is selected from the group consisting of
hydrogen, alkyl, and heteroalkyl, and where any of the alkyl,
heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or
heteroaryl moieties present in the above substituents may be
further substituted with one or more substituents independently
selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN
where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -
OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-
R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c,
O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted

alkyl, unsubstituted aryl, unsubstituted cycloalkyl,
 unsubstituted heterocycloalkyl, and unsubstituted heteroaryl,
 where R_a , R_b , R_c , R_d , and R_e are defined above;

or a pharmaceutically acceptable salt, a pharmaceutically acceptable prodrug,

5 or a pharmaceutically active metabolite of said compound, or a pharmaceutically acceptable salt of said metabolite.

8. A compound or pharmaceutically acceptable salt according to claim 7, wherein R_1 is an aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of

10 alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N-OH}$, N-OR_c , $-\text{CN}$, $-(\text{CH}_2)_z\text{-CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O-R}_a\text{-O-}$, $-\text{OR}_b$, $-\text{CO-R}_c$, O-CO-R_c , $-\text{CO-OR}_c$, $-\text{O-CO-OR}_c$, $-\text{O-CO-O-CO-R}_c$, $-\text{O-OR}_c$, $=\text{O}$, $=\text{S}$, $\text{SO}_2\text{-R}_c$, $-\text{SO-R}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO-NR}_d\text{R}_e$, $-\text{O-CO-NR}_d\text{R}_e$, $-\text{NR}_c\text{-CO-NR}_d\text{R}_e$, $-\text{NR}_c\text{-CO-R}_e$,

15 $\text{NR}_c\text{-CO-OR}_e$, $-\text{CO-NR}_c\text{-CO-R}_d$, $-\text{O-SO}_2\text{-R}_c$, $-\text{O-SO-R}_c$, $-\text{O-S-R}_c$, $-\text{S-CO-R}_c$, $-\text{SO-CO-OR}_c$, $-\text{SO}_2\text{-CO-OR}_c$, $-\text{O-SO}_3$, $-\text{NR}_c\text{-SR}_d$, $-\text{NR}_c\text{-SO-R}_d$, $\text{NR}_c\text{-SO}_2\text{-R}_d$, $-\text{CO-SR}_c$, $-\text{CO-SO-R}_c$, $\text{CO-SO}_2\text{-R}_c$, $-\text{CS-R}_c$, $-\text{CSO-R}_c$, $-\text{CSO}_2\text{-R}_c$, $-\text{NR}_c\text{-CS-R}_d$, $-\text{O-CS-R}_c$, $-\text{O-CSO-R}_c$, $\text{O-CSO}_2\text{-R}_c$, $-\text{SO}_2\text{-NR}_d\text{R}_e$, $-\text{SO-NR}_d\text{R}_e$, $-\text{S-NR}_d\text{R}_e$, $-\text{NR}_d\text{-CSO}_2\text{-R}_d$, $-\text{NR}_c\text{-CSO-R}_d$, $\text{NR}_c\text{-CS-R}_d$, $-\text{SH}$, $-\text{S-R}_b$, and $-\text{PO}_2\text{-OR}_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl,

20 R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{CO-R}_c$, $-\text{CO-OR}_c$, $-\text{O-CO-O-R}_c$, $-\text{O-CO-R}_c$, $-\text{NR}_c\text{-CO-R}_d$, $-\text{CO-NR}_d\text{R}_e$, $-\text{OH}$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl,

25 haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O-CO-O-R}_f$, $-\text{O-CO-R}_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties

30 present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z\text{-CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N-OH}$, N-OR_c , $-\text{NR}_d\text{R}_e$, $-\text{CO-NR}_d\text{R}_e$, $-\text{CO-OR}_c$, $-\text{CO-R}_c$, $-\text{NR}_c\text{-CO-NR}_d\text{R}_e$, $-\text{C-CO-OR}_c$, $-\text{NR}_c\text{-CO-R}_d$, $-\text{O-CO-O-R}_c$, $\text{O-CO-NR}_d\text{R}_e$, $-\text{SH}$, $-\text{O-R}_b$, $-\text{O-R}_a\text{-O-}$, $-\text{S-}$

R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above.

9. A compound or pharmaceutically acceptable salt according to claim 7, wherein R₇ is hydrogen.

10. A compound or pharmaceutically acceptable salt according to claim 7, wherein R₂ and R₃ are each independently an alkyl, alkoxy or aryl group, or R₂ and R₃ together with the N atom to which they are attached form a 4- to 10-membered heterocycloalkyl or heteroaryl group containing at least one N, S or O heteroatom, where the alkyl, alkoxy, aryl or heterocycloalkyl group is unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where

z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above.

11. A compound or pharmaceutically acceptable salt according to claim 7, wherein

R₁ is an aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the

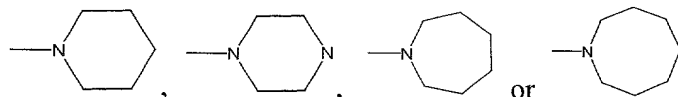
group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;

R₇ is hydrogen; and

R₂ and R₃ are each independently an alkyl, alkoxy or aryl group, or R₂ and R₃ together with the N atom to which they are attached form a 4- to 10-membered heterocycloalkyl or heteroaryl group containing at least one N, S or O heteroatom, where the alkyl, alkoxy, aryl or heterocycloalkyl group is unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl,

and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above.

12. A compound or pharmaceutically acceptable salt according to claim 10, wherein R₂ and R₃ together with the N atom to which they are attached form



unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_b, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_e, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl,

cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the

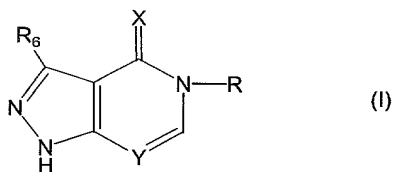
5 above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N}-\text{OH}$, $\text{N}-\text{OR}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{OR}_c$, $-\text{CO}-\text{R}_c$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{C}-\text{CO}-\text{OR}_c$, $-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{CO}-\text{O}-\text{R}_c$, $\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{SH}$, $-\text{O}-\text{R}_b$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{S}-\text{R}_b$, and

10 unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above.

13. A compound or pharmaceutically acceptable salt according to claim 12, wherein the N-heterocycloalkyl group is substituted with one or more substituents

15 independently selected from the group consisting of hydroxy, alkyl, $-\text{CO}-\text{alkyl}$, aryl, heteroaryl, cycloalkyl or heterocycloalkyl, and wherein the alkyl, aryl or heteroaryl group is unsubstituted or substituted with one or more substituents independently selected from the group consisting of halogen, hydroxy, alkoxy or allyloxy.

14. A compound represented by the formula I:



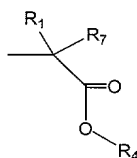
wherein:

X is O or S;

Y is N or CH;

R_6 is H or OH;

R is



wherein:

R_1 is hydrogen or an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-NO_2$, $-N-OH$, $N-OR_c$, $-CN$, $-(CH_2)_z-CN$ where z is an integer from 0 to 4, halogen, $-OH$, $-O-R_a-O-$, $-OR_b$, $-CO-R_c$, $O-CO-R_c$, $-CO-OR_c$, $-O-CO-OR_c$, $-O-CO-O-CO-R_c$, $-O-OR_c$, $=O$, $=S$, SO_2-R_c , $-SO-R_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-O-CO-NR_dR_e$, $-NR_c-CO-NR_dR_e$, $-NR_c-CO-R_e$, $NR_c-CO-OR_e$, $-CO-NR_c-CO-R_d$, $-O-SO_2-R_c$, $O-SO-R_c$, $-O-S-R_c$, $-S-CO-R_c$, $-SO-CO-OR_c$, $-SO_2-CO-OR_c$, $-O-SO_3$, $-NR_c-SR_d$, $-NR_c-SO-R_d$, $NR_c-SO_2-R_d$, $-CO-SR_c$, $-CO-SO-R_c$, $CO-SO_2-R_c$, $-CS-R_c$, $-CSO-R_c$, $-CSO_2-R_c$, $-NR_c-CS-R_d$, $-O-CS-R_c$, $-O-CSO-R_c$, $O-CSO_2-R_c$, $-SO_2-NR_dR_e$, $-SO-NR_dR_e$, $-S-NR_dR_e$, $-NR_d-CSO_2-R_d$, $-NR_c-CSO-R_d$, NR_c-CS-R_d , $-SH$, $-S-R_b$, and $-PO_2-OR_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-CO-R_c$, $-CO-OR_c$, $-O-CO-O-R_c$, $-O-CO-R_c$, $-NR_c-CO-R_d$, $-CO-NR_dR_e$, $-OH$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-COR_f$, $-COOR_f$, $-O-CO-O-R_f$, $-O-CO-R_f$, $-OH$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or

more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;

R₇ is hydrogen or a C₁-C₃ alkyl, hydroxy or C₁-C₃ alkoxy group; and

R₄ is hydrogen or an alkyl, alkenyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and

- R_c are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-COR_f$, $-COOR_f$, $-O-CO-O-R_f$, $-O-CO-R_f$, $-OH$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-CN$, $-(CH_2)_z-CN$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-OH$, $=O$, $-N-OH$, $N-OR_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-CO-OR_c$, $-CO-R_c$, $-NR_c-CO-NR_dR_e$, $-C-CO-OR_c$, $-NR_c-CO-R_d$, $-O-CO-O-R_c$, $O-CO-NR_dR_e$, $-SH$, $-O-R_b$, $-O-R_a-O-$, $-S-R_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;
- or a pharmaceutically acceptable salt, a pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite of said compound, or a pharmaceutically acceptable salt of said metabolite.

15. A compound or pharmaceutically acceptable salt according to claim 14, wherein R_1 is an aryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-NO_2$, $-N-OH$, $N-OR_c$, $-CN$, $-(CH_2)_z-CN$ where z is an integer from 0 to 4, halogen, $-OH$, $-O-R_a-O-$, $-OR_b$, $-CO-R_c$, $O-CO-R_c$, $-CO-OR_c$, $-O-CO-OR_c$, $-O-CO-O-CO-R_c$, $-O-OR_c$, $=O$, $=S$, SO_2-R_c , $-SO-R_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-O-CO-NR_dR_e$, $-NR_c-CO-NR_dR_e$, $-NR_c-CO-R_e$, $NR_c-CO-OR_e$, $-CO-NR_c-CO-R_d$, $-O-SO_2-R_c$, $-O-SO-R_c$, $-O-S-R_c$, $-S-CO-R_c$, $-SO-CO-OR_c$, $-SO_2-CO-OR_c$, $-O-SO_3$, $-NR_c-SR_d$, $-NR_c-SO-R_d$, $NR_c-SO_2-R_d$, $-CO-SR_c$, $-CO-SO-R_c$, $CO-SO_2-R_c$, $-CS-R_c$, $-CSO-R_c$, $-CSO_2-R_c$, $-NR_c-CS-R_d$, $-O-CS-R_c$, $-O-CSO-R_c$, $O-CSO_2-R_c$, $-SO_2-NR_dR_e$, $-SO-NR_dR_e$, $-S-NR_dR_e$, $-NR_d-CSO_2-R_d$, -

- NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -
- 5 OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group
- 10 consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH,
- 15 =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;
- 20 16. A compound or pharmaceutically acceptable salt according to claim 14, wherein R₇ is hydrogen.
17. A compound or pharmaceutically acceptable salt according to claim 14, wherein R₄ is hydrogen or a cycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group
- 25 consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -
- 30 NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is

selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{CO}-R_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-R_c$, $-\text{O}-\text{CO}-R_c$, $-\text{NR}_c-\text{CO}-R_d$, $-\text{CO}-\text{NR}_dR_e$, $-\text{OH}$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and

5 R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O}-\text{CO}-\text{O}-R_f$, $-\text{O}-\text{CO}-R_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where

10 any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N}-\text{OH}$, $\text{N}-\text{OR}_c$, $-\text{NR}_dR_e$, $-\text{CO}-\text{NR}_dR_e$, $-\text{CO}-\text{OR}_c$, $-\text{CO}-R_c$, $-\text{NR}_c-\text{CO}-\text{NR}_dR_e$, $-\text{C}-\text{CO}-\text{OR}_c$, $-\text{NR}_c-\text{CO}-R_d$, $-\text{O}-\text{CO}-\text{O}-R_c$, $\text{O}-\text{CO}-\text{NR}_dR_e$, $-\text{SH}$, $-\text{O}-R_b$, $-\text{O}-R_a-\text{O}-$, $-\text{S}-R_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where

15 R_a , R_b , R_c , R_d , and R_e are defined above.

18. A compound or pharmaceutically acceptable salt according to claim 14, wherein

20

R_1 is an aryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N}-\text{OH}$, $\text{N}-\text{OR}_c$, $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O}-R_a-\text{O}-$, $-\text{OR}_b$, $-\text{CO}-R_c$, $\text{O}-\text{CO}-R_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-\text{CO}-R_c$, $-\text{O}-\text{OR}_c$, $=\text{O}$, $=\text{S}$, SO_2-R_c , $-\text{SO}-R_c$, $-\text{NR}_dR_e$, $-\text{CO}-\text{NR}_dR_e$, $-\text{O}-\text{CO}-\text{NR}_dR_e$, $-\text{NR}_c-\text{CO}-\text{NR}_dR_e$, $-\text{NR}_c-\text{CO}-R_e$, $\text{NR}_c-\text{CO}-\text{OR}_e$, $-\text{CO}-\text{NR}_c-\text{CO}-R_d$, $-\text{O}-\text{SO}_2-R_c$, $-\text{O}-\text{SO}-R_c$, $-\text{O}-\text{S}-R_c$, $-\text{S}-\text{CO}-R_c$, $-\text{SO}-\text{CO}-\text{OR}_c$, $-\text{SO}_2-\text{CO}-\text{OR}_c$, $-\text{O}-\text{SO}_3$, $-\text{NR}_c-\text{SR}_d$, $-\text{NR}_c-\text{SO}-R_d$, $\text{NR}_c-\text{SO}_2-R_d$, $-\text{CO}-\text{SR}_c$, $-\text{CO}-\text{SO}-R_c$, $\text{CO}-\text{SO}_2-R_c$, $-\text{CS}-R_c$, $-\text{CSO}-R_c$, $-\text{CSO}_2-R_c$, $-\text{NR}_c-\text{CS}-R_d$, $-\text{O}-\text{CS}-R_c$, $-\text{O}-\text{CSO}-R_c$, $\text{O}-\text{CSO}_2-R_c$, $-\text{SO}_2-\text{NR}_dR_e$, $-\text{SO}-\text{NR}_dR_e$, $-\text{S}-\text{NR}_dR_e$, $-\text{NR}_d-\text{CSO}_2-R_d$, $-\text{NR}_c-\text{CSO}-R_d$, $\text{NR}_c-\text{CS}-R_d$, $-\text{SH}$, $-\text{S}-R_b$, and $-\text{PO}_2-\text{OR}_c$, where

25 R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl,

30

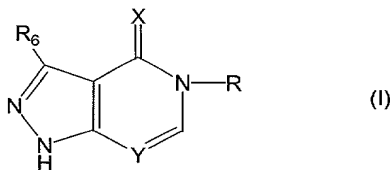
heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;

R₇ is hydrogen; and

R₄ is hydrogen or a cycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -

O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl,
heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently
selected from the group consisting of hydrogen, alkyl, heteroalkyl,
haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f, -
5 OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can
cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected
from the group consisting of hydrogen, alkyl, and heteroalkyl, and where
any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl,
or heteroaryl moieties present in the above substituents may be further
10 substituted with one or more substituents independently selected from the
group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to
4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-
NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d,
-O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and
15 unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl,
unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b,
R_c, R_d, and R_e are defined above.

19. A compound represented by the formula I:



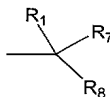
wherein:

X is O or S;

Y is CH;

R₆ is H or OH;

R is



wherein:

R_1 is hydrogen or an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N}-\text{OH}$, $\text{N}-\text{OR}_c$, $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{OR}_b$, $-\text{CO}-\text{R}_c$, $\text{O}-\text{CO}-\text{R}_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-\text{CO}-\text{R}_c$, $-\text{O}-\text{OR}_c$, $=\text{O}$, $=\text{S}$, SO_2-R_c , $-\text{SO}-\text{R}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{R}_e$, $\text{NR}_c-\text{CO}-\text{OR}_e$, $-\text{CO}-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{SO}_2-\text{R}_c$, $-\text{O}-\text{SO}-\text{R}_c$, $-\text{O}-\text{S}-\text{R}_c$, $-\text{S}-\text{CO}-\text{R}_c$, $-\text{SO}-\text{CO}-\text{OR}_c$, $-\text{SO}_2-\text{CO}-\text{OR}_c$, $-\text{O}-\text{SO}_3$, $-\text{NR}_c-\text{SR}_d$, $-\text{NR}_c-\text{SO}-\text{R}_d$, $\text{NR}_c-\text{SO}_2-\text{R}_d$, $-\text{CO}-\text{SR}_c$, $-\text{CO}-\text{SO}-\text{R}_c$, $\text{CO}-\text{SO}_2-\text{R}_c$, $-\text{CS}-\text{R}_c$, $-\text{CSO}-\text{R}_c$, $-\text{CSO}_2-\text{R}_c$, $-\text{NR}_c-\text{CS}-\text{R}_d$, $-\text{O}-\text{CS}-\text{R}_c$, $-\text{O}-\text{CSO}-\text{R}_c$, $\text{O}-\text{CSO}_2-\text{R}_c$, $-\text{SO}_2-\text{NR}_d\text{R}_e$, $-\text{SO}-\text{NR}_d\text{R}_e$, $-\text{S}-\text{NR}_d\text{R}_e$, $-\text{NR}_d-\text{CSO}_2-\text{R}_d$, $-\text{NR}_c-\text{CSO}-\text{R}_d$, $\text{NR}_c-\text{CS}-\text{R}_d$, $-\text{SH}$, $-\text{S}-\text{R}_b$, and $-\text{PO}_2-\text{OR}_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{CO}-\text{R}_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-\text{R}_c$, $-\text{O}-\text{CO}-\text{R}_c$, $-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{OH}$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O}-\text{CO}-\text{O}-\text{R}_f$, $-\text{O}-\text{CO}-\text{R}_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or

more substituents independently selected from the group consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;

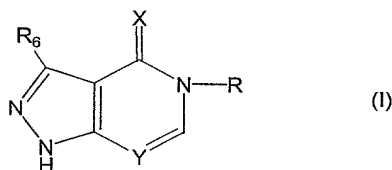
R₇ is hydrogen or a C₁-C₃ alkyl, hydroxy or C₁-C₃ alkoxy group; and

R₈ is hydrogen or an alkyl, alkenyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where alkyl, heteroalkyl, alkenyl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently

selected from the group consisting of hydrogen, alkyl,
heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -
O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl,
and heterocycloalkyl, where R_d and R_e can cyclize to form a
heteroaryl or heterocycloalkyl group, and R_f is selected
from the group consisting of hydrogen, alkyl, and
heteroalkyl, and where any of the alkyl, heteroalkyl,
alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl
moieties present in the above substituents may be further
substituted with one or more substituents independently
selected from the group consisting of NO₂, -CN, -(CH₂)_z-
CN where z is an integer from 0 to 4, halogen, haloalkyl,
haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -
CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-
R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-
R_b, and unsubstituted alkyl, unsubstituted aryl,
unsubstituted cycloalkyl, unsubstituted heterocycloalkyl,
and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e
are defined above;

or a pharmaceutically acceptable salt, a pharmaceutically acceptable
prodrug, or a pharmaceutically active metabolite of said compound, or a
pharmaceutically acceptable salt of said metabolite.

20. A compound represented by the formula I:



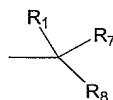
wherein:

X is O or S;

Y is N;

R₆ is OH;

R is



wherein:

5 R_1 is hydrogen or an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N-OH}$, N-OR_c , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O-R}_a-\text{O}-$, $-\text{OR}_b$, $-\text{CO-R}_c$, O-CO-R_c , $-\text{CO-OR}_c$, $-\text{O-CO-OR}_c$, $-\text{O-CO-O-CO-R}_c$, $-\text{O-OR}_c$, $=\text{O}$, $=\text{S}$, SO_2-R_c , $-\text{SO-R}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO-NR}_d\text{R}_e$, $-\text{O-CO-NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO-NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO-R}_e$, $\text{NR}_c-\text{CO-OR}_e$, $-\text{CO-NR}_c-\text{CO-R}_d$, $-\text{O-SO}_2-\text{R}_c$, $-\text{O-SO-R}_c$, $-\text{O-S-R}_c$, $-\text{S-CO-R}_c$, $-\text{SO-CO-OR}_c$, $-\text{SO}_2-\text{CO-OR}_c$, $-\text{O-SO}_3$, $-\text{NR}_c-\text{SR}_d$, $-\text{NR}_c-\text{SO-R}_d$, $\text{NR}_c-\text{SO}_2-\text{R}_d$, $-\text{CO-SR}_c$, $-\text{CO-SO-R}_c$, $\text{CO-SO}_2-\text{R}_c$, $-\text{CS-R}_c$, $-\text{CSO-R}_c$, $-\text{CSO}_2-\text{R}_c$, $-\text{NR}_c-\text{CS-R}_d$, $-\text{O-CS-R}_c$, $-\text{O-CSO-R}_c$, $\text{O-CSO}_2-\text{R}_c$, $-\text{SO}_2-\text{NR}_d\text{R}_e$, $-\text{SO-NR}_d\text{R}_e$, $-\text{S-NR}_d\text{R}_e$, $-\text{NR}_d-\text{CSO}_2-\text{R}_d$, $-\text{NR}_c-\text{CSO-R}_d$, $\text{NR}_c-\text{CS-R}_d$, $-\text{SH}$, $-\text{S-R}_b$, and $-\text{PO}_2-\text{OR}_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{CO-R}_c$, $-\text{CO-OR}_c$, $-\text{O-CO-O-R}_c$, $-\text{O-CO-R}_c$, $-\text{NR}_c-\text{CO-R}_d$, $-\text{CO-NR}_d\text{R}_e$, $-\text{OH}$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O-CO-O-R}_f$, $-\text{O-CO-R}_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl

group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N}-\text{OH}$, $-\text{N}-\text{OR}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{OR}_c$, $-\text{CO}-\text{R}_c$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{C}-\text{CO}-\text{OR}_c$, $-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{CO}-\text{O}-\text{R}_c$, $\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{SH}$, $-\text{O}-\text{R}_b$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{S}-\text{R}_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;

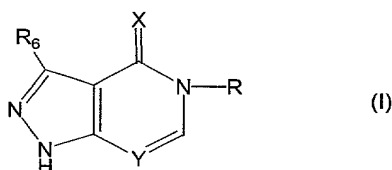
R_7 is hydrogen or a $\text{C}_1\text{-C}_3$ alkyl, hydroxy or $\text{C}_1\text{-C}_3$ alkoxy group; and

R_8 is hydrogen or an alkyl, alkenyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N}-\text{OH}$, $-\text{N}-\text{OR}_c$, $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O}-\text{R}_a-\text{O}-$, $-\text{OR}_b$, $-\text{CO}-\text{R}_c$, $\text{O}-\text{CO}-\text{R}_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-\text{CO}-\text{R}_c$, $-\text{O}-\text{OR}_c$, $=\text{O}$, $=\text{S}$, SO_2-R_c , $-\text{SO}-\text{R}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{O}-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{NR}_d\text{R}_e$, $-\text{NR}_c-\text{CO}-\text{R}_e$, $\text{NR}_c-\text{CO}-\text{OR}_e$, $-\text{CO}-\text{NR}_c-\text{CO}-\text{R}_d$, $-\text{O}-\text{SO}_2-\text{R}_c$, $-\text{O}-\text{SO}-\text{R}_c$, $-\text{O}-\text{S}-\text{R}_c$, $-\text{S}-\text{CO}-\text{R}_c$, $-\text{SO}-\text{CO}-\text{OR}_c$, $-\text{SO}_2-\text{CO}-\text{OR}_c$, $-\text{O}-\text{SO}_3$, $-\text{NR}_c-\text{SR}_d$, $-\text{NR}_c-\text{SO}-\text{R}_d$, $\text{NR}_c-\text{SO}_2-\text{R}_d$, $-\text{CO}-\text{SR}_c$, $-\text{CO}-\text{SO}-\text{R}_c$, $\text{CO}-\text{SO}_2-\text{R}_c$, $-\text{CS}-\text{R}_c$, $-\text{CSO}-\text{R}_c$, $-\text{CSO}_2-\text{R}_c$, $-\text{NR}_c-\text{CS}-\text{R}_d$, $-\text{O}-\text{CS}-\text{R}_c$, $-\text{O}-\text{CSO}-\text{R}_c$, $\text{O}-\text{CSO}_2-\text{R}_c$, $-\text{SO}_2-\text{NR}_d\text{R}_e$, $-\text{SO}-\text{NR}_d\text{R}_e$, $-\text{S}-\text{NR}_d\text{R}_e$, $-\text{NR}_d-\text{CSO}_2-\text{R}_d$, $-\text{NR}_c-\text{CSO}-\text{R}_d$, $\text{NR}_c-\text{CS}-\text{R}_d$, $-\text{SH}$, $-\text{S}-\text{R}_b$, and $-\text{PO}_2-\text{OR}_c$, where alkyl,

heteroalkyl, alkenyl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{CO}-R_c$, $-\text{CO}-\text{OR}_c$, $-\text{O}-\text{CO}-\text{O}-R_c$, $-\text{O}-\text{CO}-R_c$, $-\text{NR}_c-\text{CO}-R_d$, $-\text{CO}-\text{NR}_dR_e$, $-\text{OH}$, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O}-\text{CO}-\text{O}-R_f$, $-\text{O}-\text{CO}-R_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z-\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N}-\text{OH}$, $\text{N}-\text{OR}_c$, $-\text{NR}_dR_e$, $-\text{CO}-\text{NR}_dR_e$, $-\text{CO}-\text{OR}_c$, $-\text{CO}-R_c$, $-\text{NR}_c-\text{CO}-\text{NR}_dR_e$, $-\text{C}-\text{CO}-\text{OR}_c$, $-\text{NR}_c-\text{CO}-R_d$, $-\text{O}-\text{CO}-\text{O}-R_c$, $\text{O}-\text{CO}-\text{NR}_dR_e$, $-\text{SH}$, $-\text{O}-R_b$, $-\text{O}-R_a-\text{O}-$, $-\text{S}-R_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;

or a pharmaceutically acceptable salt, a pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite of said compound, or a pharmaceutically acceptable salt of said metabolite.

21. A compound represented by the formula I:



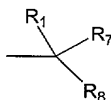
wherein:

X is S;

Y is N;

R₆ is H or OH;

R is



5

wherein:

10 R₁ is an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z
 15 is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl,
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heteroalkyl, haloalkyl, alkenyl, alkynyl, $-\text{COR}_f$, $-\text{COOR}_f$, $-\text{O-CO-O-R}_f$, $-\text{O-CO-R}_f$, $-\text{OH}$, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-\text{CN}$, $-(\text{CH}_2)_z\text{CN}$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-\text{OH}$, $=\text{O}$, $-\text{N-OH}$, N-OR_c , $-\text{NR}_d\text{R}_e$, $-\text{CO-NR}_d\text{R}_e$, $-\text{CO-OR}_c$, $-\text{CO-R}_c$, $-\text{NR}_c\text{-CO-NR}_d\text{R}_e$, $-\text{C-CO-OR}_c$, $-\text{NR}_c\text{-CO-R}_d$, $-\text{O-CO-O-R}_c$, $\text{O-CO-NR}_d\text{R}_e$, $-\text{SH}$, $-\text{O-R}_b$, $-\text{O-R}_a\text{-O-}$, $-\text{S-R}_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;

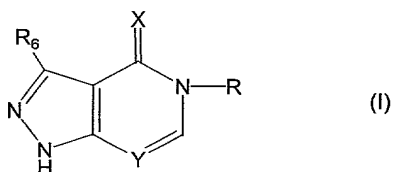
R_7 is hydrogen or a $\text{C}_1\text{-C}_3$ alkyl, hydroxy or $\text{C}_1\text{-C}_3$ alkoxy group; and

R_8 is hydrogen or an alkyl, alkenyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-\text{NO}_2$, $-\text{N-OH}$, N-OR_c , $-\text{CN}$, $-(\text{CH}_2)_z\text{CN}$ where z is an integer from 0 to 4, halogen, $-\text{OH}$, $-\text{O-R}_a\text{-O-}$, $-\text{OR}_b$, $-\text{CO-R}_c$, O-CO-R_c , $-\text{CO-OR}_c$, $-\text{O-CO-OR}_c$, $-\text{O-CO-O-CO-R}_c$, $-\text{O-OR}_c$, $=\text{O}$, $=\text{S}$, $\text{SO}_2\text{-R}_c$, $-\text{SO-R}_c$, $-\text{NR}_d\text{R}_e$, $-\text{CO-NR}_d\text{R}_e$, $-\text{O-CO-NR}_d\text{R}_e$, $-\text{NR}_c\text{-CO-NR}_d\text{R}_e$, $-\text{NR}_c\text{-CO-R}_e$, $\text{NR}_c\text{-CO-OR}_e$, $-\text{CO-NR}_c\text{-CO-R}_d$, $-\text{O-SO}_2\text{-R}_c$, $-\text{O-SO-R}_c$, $-\text{O-S-R}_c$, $-\text{S-CO-R}_c$, $-\text{SO-CO-OR}_c$, $-\text{SO}_2\text{-CO-OR}_c$, $-\text{O-SO}_3$, $-\text{NR}_c\text{-SR}_d$, $-\text{NR}_c\text{-SO-R}_d$, $\text{NR}_c\text{-SO}_2\text{-R}_d$, $-\text{CO-SR}_c$, -

CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -
 NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-
 NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-
 R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where alkyl,
 5 heteroalkyl, alkenyl, and alkynyl, R_b is selected from the
 group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl,
 alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-
 CO-R_d, -CO-NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl,
 and cycloalkyl, and R_c, R_d and R_e are each independently
 10 selected from the group consisting of hydrogen, alkyl,
 heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -
 O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl,
 and heterocycloalkyl, where R_d and R_e can cyclize to form a
 heteroaryl or heterocycloalkyl group, and R_f is selected
 15 from the group consisting of hydrogen, alkyl, and
 heteroalkyl, and where any of the alkyl, heteroalkyl,
 alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl
 moieties present in the above substituents may be further
 substituted with one or more substituents independently
 20 selected from the group consisting of NO₂, -CN, -(CH₂)_z-
 CN where z is an integer from 0 to 4, halogen, haloalkyl,
 haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -
 CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-
 R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-
 25 R_b, and unsubstituted alkyl, unsubstituted aryl,
 unsubstituted cycloalkyl, unsubstituted heterocycloalkyl,
 and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d and R_e
 are defined above;

or a pharmaceutically acceptable salt, a pharmaceutically acceptable
 30 prodrug, or a pharmaceutically active metabolite of said compound, or a
 pharmaceutically acceptable salt of said metabolite.

22. A compound represented by the formula I:



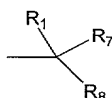
wherein:

X is O;

Y is N;

5 R_6 is H;

R is



wherein:

10 R_1 is an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of

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20

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alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, -CO-R_c,
 -CO-OR_c, -O-CO-O-R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-
 NR_dR_e, -OH, Ar, heteroaryl, heterocycloalkyl, and
 cycloalkyl, and R_c, R_d and R_e are each independently
 5 selected from the group consisting of hydrogen, alkyl,
 heteroalkyl, haloalkyl, alkenyl, alkynyl, -COR_f, -COOR_f, -
 O-CO-O-R_f, -O-CO-R_f, -OH, Ar, heteroaryl, cycloalkyl,
 and heterocycloalkyl, where R_d and R_e can cyclize to form a
 heteroaryl or heterocycloalkyl group, and R_f is selected
 10 from the group consisting of hydrogen, alkyl, and
 heteroalkyl, and where any of the alkyl, heteroalkyl,
 alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl
 moieties present in the above substituents may be further
 substituted with one or more substituents independently
 15 selected from the group consisting of NO₂, -CN, -(CH₂)_z-
 CN where z is an integer from 0 to 4, halogen, haloalkyl,
 haloaryl, -OH, =O, -N-OH, N-OR_c, -NR_dR_e, -CO-NR_dR_e, -
 CO-OR_c, -CO-R_c, -NR_c-CO-NR_dR_e, -C-CO-OR_c, -NR_c-CO-
 R_d, -O-CO-O-R_c, O-CO-NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-
 20 R_b, and unsubstituted alkyl, unsubstituted aryl,
 unsubstituted cycloalkyl, unsubstituted heterocycloalkyl,
 and unsubstituted heteroaryl, where R_a, R_b, R_c, R_d, and R_e
 are defined above;

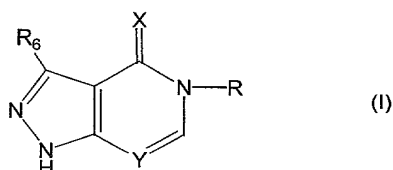
R₇ is hydrogen or a C₁-C₃ alkyl, hydroxy or C₁-C₃
 25 alkoxy group; and

R₈ is an alkenyl, alkoxy, allyloxy, aryl, heteroaryl,
 cycloalkyl or heterocycloalkyl group unsubstituted or
 substituted with one or more substituents independently
 selected from the group consisting of alkyl, heteroalkyl,
 30 haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl,
 aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-
 OH, N-OR_c, -CN, -(CH₂)_z-CN where z is an integer from 0
 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -
 CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S,

5 SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -
 NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-
 CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-
 CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d,
 10 NR_c-SO₂-R_d, -CO-SR_c, -CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -
 CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c,
 O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-
 CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -
 PO₂-OR_c, where alkyl, heteroalkyl, alkenyl, and alkynyl, R_b
 15 is selected from the group consisting of alkyl, heteroalkyl,
 haloalkyl, alkenyl, alkynyl, -CO-R_c, -CO-OR_c, -O-CO-O-
 R_c, -O-CO-R_c, -NR_c-CO-R_d, -CO-NR_dR_e, -OH, Ar,
 heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c, R_d and
 R_e are each independently selected from the group
 20 consisting of hydrogen, alkyl, heteroalkyl, haloalkyl,
 alkenyl, alkynyl, -COR_f, -COOR_f, -O-CO-O-R_f, -O-CO-R_f,
 -OH, Ar, heteroaryl, cycloalkyl, and heterocycloalkyl,
 where R_d and R_e can cyclize to form a heteroaryl or
 heterocycloalkyl group, and R_f is selected from the group
 25 consisting of hydrogen, alkyl, and heteroalkyl, and where
 any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl,
 heterocycloalkyl, or heteroaryl moieties present in the
 above substituents may be further substituted with one or
 more substituents independently selected from the group
 30 consisting of NO₂, -CN, -(CH₂)_z-CN where z is an integer
 from 0 to 4, halogen, haloalkyl, haloaryl, -OH, =O, -N-OH,
 N-OR_c, -NR_dR_e, -CO-NR_dR_e, -CO-OR_c, -CO-R_c, -NR_c-CO-
 NR_dR_e, -C-CO-OR_c, -NR_c-CO-R_d, -O-CO-O-R_c, O-CO-
 NR_dR_e, -SH, -O-R_b, -O-R_a-O-, -S-R_b, and unsubstituted
 alkyl, unsubstituted aryl, unsubstituted cycloalkyl,
 unsubstituted heterocycloalkyl, and unsubstituted
 heteroaryl, where R_a, R_b, R_c, R_d, and R_e are defined above;
 or a pharmaceutically acceptable salt, a pharmaceutically acceptable prodrug,
 or a pharmaceutically active metabolite of said compound, or a

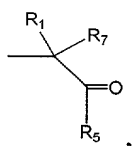
pharmaceutically acceptable salt of said metabolite.

23. A compound represented by the formula I:



wherein:

- 5 X is O or S;
 Y is N or CH;
 R₆ is H or OH; and
 R is



- 10 wherein:

- 15 R₁ is hydrogen or an alkyl, alkenyl, alkynyl, alkoxy, allyloxy, aryl, heteroaryl, cycloalkyl or heterocycloalkyl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, -NO₂, -N-OH, N-OR_c, -CN, -
- 20 (CH₂)_z-CN where z is an integer from 0 to 4, halogen, -OH, -O-R_a-O-, -OR_b, -CO-R_c, O-CO-R_c, -CO-OR_c, -O-CO-OR_c, -O-CO-O-CO-R_c, -O-OR_c, =O, =S, SO₂-R_c, -SO-R_c, -NR_dR_e, -CO-NR_dR_e, -O-CO-NR_dR_e, -NR_c-CO-NR_dR_e, -NR_c-CO-R_e, NR_c-CO-OR_e, -CO-NR_c-CO-R_d, -O-SO₂-R_c, -O-SO-R_c, -O-S-R_c, -S-CO-R_c, -SO-CO-OR_c, -SO₂-CO-OR_c, -O-SO₃, -NR_c-SR_d, -NR_c-SO-R_d, NR_c-SO₂-R_d, -CO-SR_c, -
- 25 CO-SO-R_c, CO-SO₂-R_c, -CS-R_c, -CSO-R_c, -CSO₂-R_c, -NR_c-CS-R_d, -O-CS-R_c, -O-CSO-R_c, O-CSO₂-R_c, -SO₂-NR_dR_e, -SO-NR_dR_e, -S-NR_dR_e, -NR_d-CSO₂-R_d, -NR_c-CSO-R_d, NR_c-CS-R_d, -SH, -S-R_b, and -PO₂-OR_c, where R_a is

selected from the group consisting of alkyl, heteroalkyl,
 alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from
 the group consisting of alkyl, heteroalkyl, haloalkyl,
 alkenyl, alkynyl, $-CO-R_c$, $-CO-OR_c$, $-O-CO-O-R_c$, $-O-CO-$
 5 R_c , $-NR_c-CO-R_d$, $-CO-NR_dR_e$, $-OH$, Ar, heteroaryl,
 heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are
 each independently selected from the group consisting of
 hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl,
 10 $-COR_f$, $-COOR_f$, $-O-CO-O-R_f$, $-O-CO-R_f$, $-OH$, Ar,
 heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and
 R_e can cyclize to form a heteroaryl or heterocycloalkyl
 group, and R_f is selected from the group consisting of
 hydrogen, alkyl, and heteroalkyl, and where any of the
 15 alkyl, heteroalkyl, alkylene, aryl, cycloalkyl,
 heterocycloalkyl, or heteroaryl moieties present in the
 above substituents may be further substituted with one or
 more substituents independently selected from the group
 consisting of NO_2 , $-CN$, $-(CH_2)_z-CN$ where z is an integer
 from 0 to 4, halogen, haloalkyl, haloaryl, $-OH$, $=O$, $-N-OH$,
 20 $N-OR_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-CO-OR_c$, $-CO-R_c$, $-NR_c-CO-$
 NR_dR_e , $-C-CO-OR_c$, $-NR_c-CO-R_d$, $-O-CO-O-R_c$, $O-CO-$
 NR_dR_e , $-SH$, $-O-R_b$, $-O-R_a-O-$, $-S-R_b$, and unsubstituted
 alkyl, unsubstituted aryl, unsubstituted cycloalkyl,
 unsubstituted heterocycloalkyl, and unsubstituted
 25 heteroaryl, where R_a , R_b , R_c , R_d , and R_e are defined above;
 R_5 is hydrogen or an alkyl, alkenyl, alkynyl,
 cycloalkyl, heterocycloalkyl, aryl or heteroaryl group
 unsubstituted or substituted with one or more substituents
 independently selected from the group consisting of alkyl,
 30 heteroalkyl, haloalkyl, haloaryl, halocycloalkyl,
 haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl,
 heteroaryl, $-NO_2$, $-N-OH$, $N-OR_c$, $-CN$, $-(CH_2)_z-CN$ where z
 is an integer from 0 to 4, halogen, $-OH$, $-O-R_a-O-$, $-OR_b$, $-$
 $CO-R_c$, $O-CO-R_c$, $-CO-OR_c$, $-O-CO-OR_c$, $-O-CO-O-CO-$

R_c , $-O-OR_c$, $=O$, $=S$, SO_2-R_c , $-SO-R_c$, $-NR_dR_e$, $-CO-NR_dR_e$,
 $-O-CO-NR_dR_e$, $-NR_c-CO-NR_dR_e$, $-NR_c-CO-R_e$, NR_c-CO-
 OR_e , $-CO-NR_c-CO-R_d$, $-O-SO_2-R_c$, $-O-SO-R_c$, $-O-S-R_c$, $-S-$
 $CO-R_c$, $-SO-CO-OR_c$, $-SO_2-CO-OR_c$, $-O-SO_3$, $-NR_c-SR_d$, $-$
 NR_c-SO-R_d , $NR_c-SO_2-R_d$, $-CO-SR_c$, $-CO-SO-R_c$, $CO-SO_2-$
 R_c , $-CS-R_c$, $-CSO-R_c$, $-CSO_2-R_c$, $-NR_c-CS-R_d$, $-O-CS-R_c$, $-$
 $O-CSO-R_c$, $O-CSO_2-R_c$, $-SO_2-NR_dR_e$, $-SO-NR_dR_e$, $-S-$
 NR_dR_e , $-NR_d-CSO_2-R_d$, $-NR_c-CSO-R_d$, NR_c-CS-R_d , $-SH$, $-$
 $S-R_b$, and $-PO_2-OR_c$, where R_a is selected from the group
consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl,
and alkynyl, R_b is selected from the group consisting of
alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-CO-R_c$,
 $-CO-OR_c$, $-O-CO-O-R_c$, $-O-CO-R_c$, $-NR_c-CO-R_d$, $-CO-$
 NR_dR_e , $-OH$, Ar , heteroaryl, heterocycloalkyl, and
cycloalkyl, and R_c , R_d and R_e are each independently
selected from the group consisting of hydrogen, alkyl,
heteroalkyl, haloalkyl, alkenyl, alkynyl, $-COR_f$, $-COOR_f$, $-$
 $O-CO-O-R_f$, $-O-CO-R_f$, $-OH$, Ar , heteroaryl, cycloalkyl,
and heterocycloalkyl, where R_d and R_e can cyclize to form a
heteroaryl or heterocycloalkyl group, and R_f is selected
from the group consisting of hydrogen, alkyl, and
heteroalkyl, and where any of the alkyl, heteroalkyl,
alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl
moieties present in the above substituents may be further
substituted with one or more substituents independently
selected from the group consisting of NO_2 , $-CN$, $-(CH_2)_z-$
 CN where z is an integer from 0 to 4, halogen, haloalkyl,
haloaryl, $-OH$, $=O$, $-N-OH$, $N-OR_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-$
 $CO-OR_c$, $-CO-R_c$, $-NR_c-CO-NR_dR_e$, $-C-CO-OR_c$, $-NR_c-CO-$
 R_d , $-O-CO-O-R_c$, $O-CO-NR_dR_e$, $-SH$, $-O-R_b$, $-O-R_a-O-$, $-S-$
 R_b , and unsubstituted alkyl, unsubstituted aryl,
unsubstituted cycloalkyl, unsubstituted heterocycloalkyl,
and unsubstituted heteroaryl, where R_a , R_b , R_c , R_d and R_e
are defined above; and

R_7 is hydrogen or a C_1 - C_3 alkyl, hydroxy or C_1 - C_3 alkoxy group;

or a pharmaceutically acceptable salt, a pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite of said compound, or a pharmaceutically acceptable salt of said metabolite.

24. A compound or pharmaceutically acceptable salt according to claim 23, wherein R_5 is a cycloalkyl, heterocycloalkyl, aryl or heteroaryl group unsubstituted or substituted with one or more substituents independently selected from the group consisting of alkyl, heteroalkyl, haloalkyl, haloaryl, halocycloalkyl, haloheterocycloalkyl, aryl, cycloalkyl, heterocycloalkyl, heteroaryl, $-NO_2$, $-N-OH$, $N-OR_c$, $-CN$, $-(CH_2)_z-CN$ where z is an integer from 0 to 4, halogen, $-OH$, $-O-R_a-O-$, $-OR_b$, $-CO-R_c$, $O-CO-R_c$, $-CO-OR_c$, $-O-CO-OR_c$, $-O-CO-O-CO-R_c$, $-O-OR_c$, $=O$, $=S$, SO_2-R_c , $-SO-R_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-O-CO-NR_dR_e$, $-NR_c-CO-NR_dR_e$, $-NR_c-CO-R_e$, $NR_c-CO-OR_e$, $-CO-NR_c-CO-R_d$, $-O-SO_2-R_c$, $-O-SO-R_c$, $-O-S-R_c$, $-S-CO-R_c$, $-SO-CO-OR_c$, $-SO_2-CO-OR_c$, $-O-SO_3$, $-NR_c-SR_d$, $-NR_c-SO-R_d$, $NR_c-SO_2-R_d$, $-CO-SR_c$, $-CO-SO-R_c$, $CO-SO_2-R_c$, $-CS-R_c$, $-CSO-R_c$, $-CSO_2-R_c$, $-NR_c-CS-R_d$, $-O-CS-R_c$, $-O-CSO-R_c$, $O-CSO_2-R_c$, $-SO_2-NR_dR_e$, $-SO-NR_dR_e$, $-S-NR_dR_e$, $-NR_d-CSO_2-R_d$, $-NR_c-CSO-R_d$, NR_c-CS-R_d , $-SH$, $-S-R_b$, and $-PO_2-OR_c$, where R_a is selected from the group consisting of alkyl, heteroalkyl, alkenyl, aryl, heteroaryl, and alkynyl, R_b is selected from the group consisting of alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-CO-R_c$, $-CO-OR_c$, $-O-CO-O-R_c$, $-O-CO-R_c$, $-NR_c-CO-R_d$, $-CO-NR_dR_e$, $-OH$, Ar , heteroaryl, heterocycloalkyl, and cycloalkyl, and R_c , R_d and R_e are each independently selected from the group consisting of hydrogen, alkyl, heteroalkyl, haloalkyl, alkenyl, alkynyl, $-COR_f$, $-COOR_f$, $-O-CO-O-R_f$, $-O-CO-R_f$, $-OH$, Ar , heteroaryl, cycloalkyl, and heterocycloalkyl, where R_d and R_e can cyclize to form a heteroaryl or heterocycloalkyl group, and R_f is selected from the group consisting of hydrogen, alkyl, and heteroalkyl, and where any of the alkyl, heteroalkyl, alkylene, aryl, cycloalkyl, heterocycloalkyl, or heteroaryl moieties present in the above substituents may be further substituted with one or more substituents independently selected from the group consisting of NO_2 , $-CN$, $-(CH_2)_z-CN$ where z is an integer from 0 to 4, halogen, haloalkyl, haloaryl, $-OH$, $=O$, $-N-OH$, $N-OR_c$, $-NR_dR_e$, $-CO-NR_dR_e$, $-CO-OR_c$, $-CO-R_c$, $-NR_c-CO-NR_dR_e$, $-C-CO-OR_c$, $-NR_c-CO-R_d$, $-O-CO-O-R_c$, $O-CO-NR_dR_e$, $-SH$, $-O-R_b$, $-O-R_a-O-$, $-S-R_b$, and unsubstituted alkyl, unsubstituted aryl, unsubstituted cycloalkyl, unsubstituted heterocycloalkyl, and unsubstituted heteroaryl,

where R_a , R_b , R_c , R_d , and R_e are defined above.

25. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is N; X is O; and R_6 is H.

26. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is N; X is S; and R_6 is H.

27. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is CH; X is O; and R_6 is H.

28. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is CH; X is S; and R_6 is H.

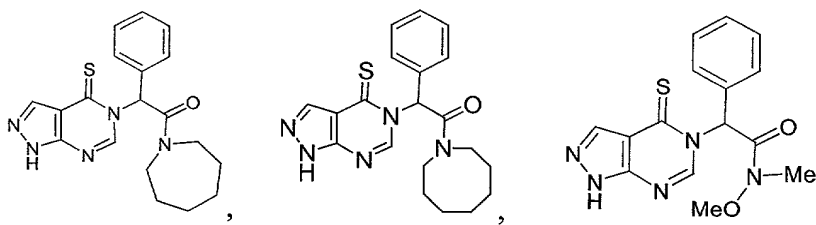
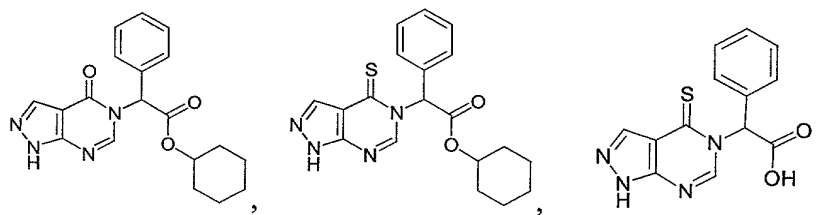
29. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is N; X is O; and R_6 is OH.

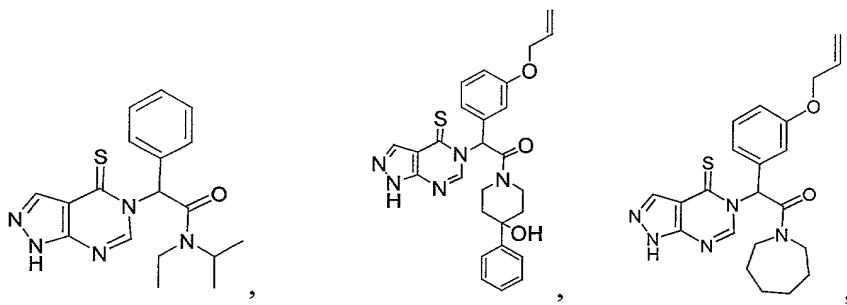
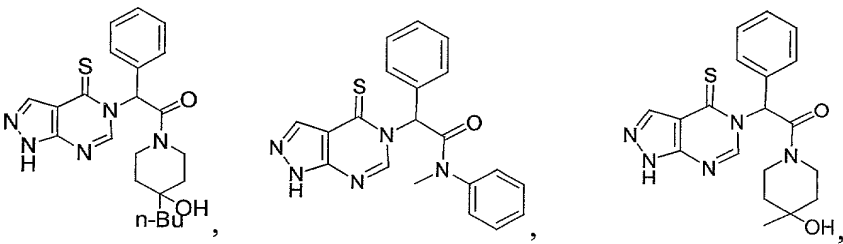
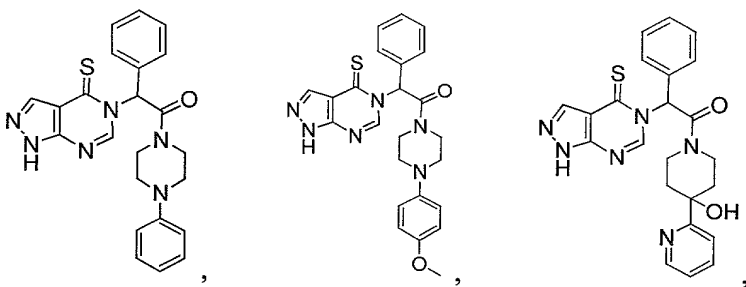
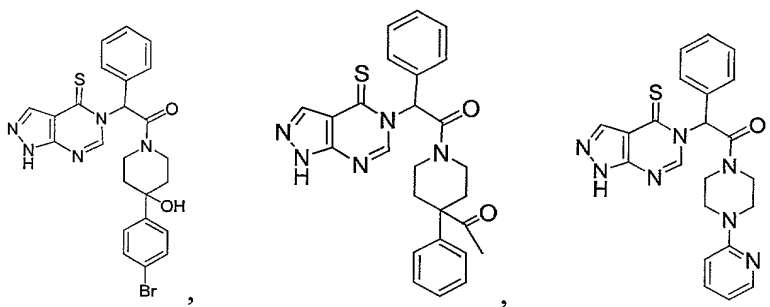
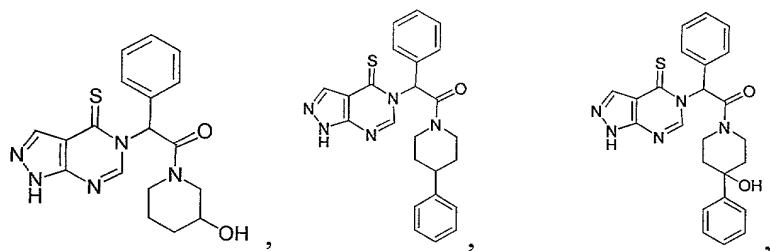
30. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is N; X is S; and R_6 is OH.

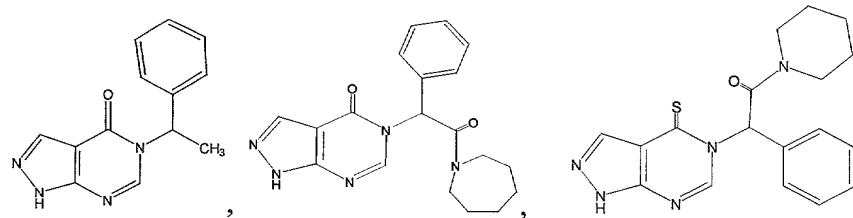
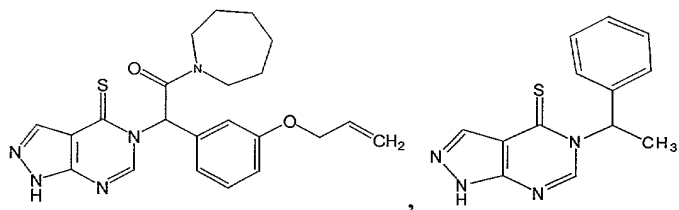
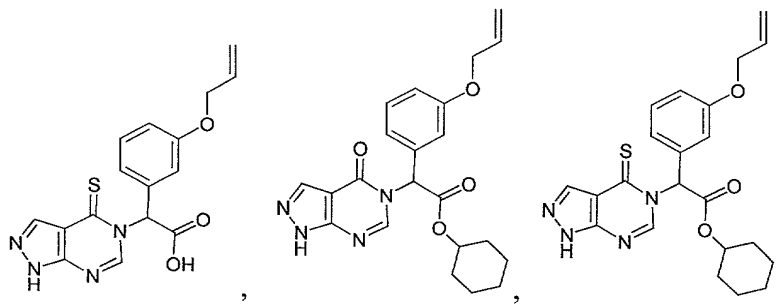
31. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is CH; X is O; and R_6 is OH.

32. A compound or pharmaceutically acceptable salt according to claim 1, wherein Y is CH; X is S; and R_6 is OH.

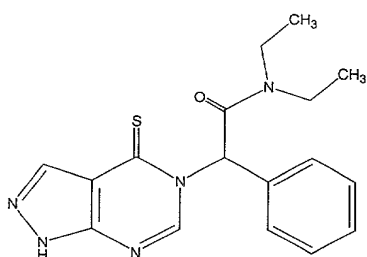
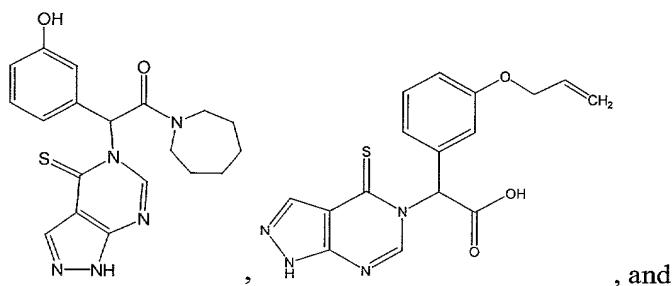
33. A compound selected from the group consisting of







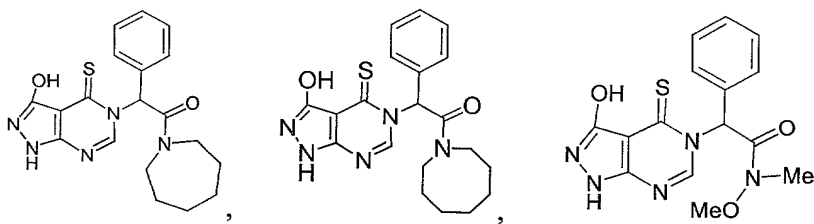
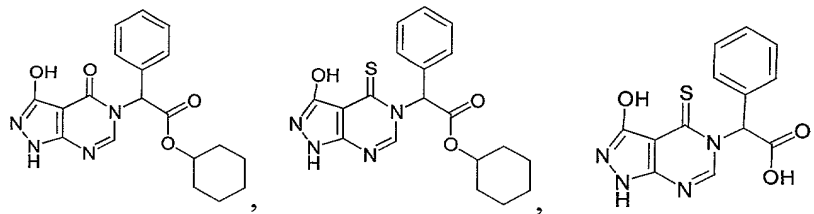
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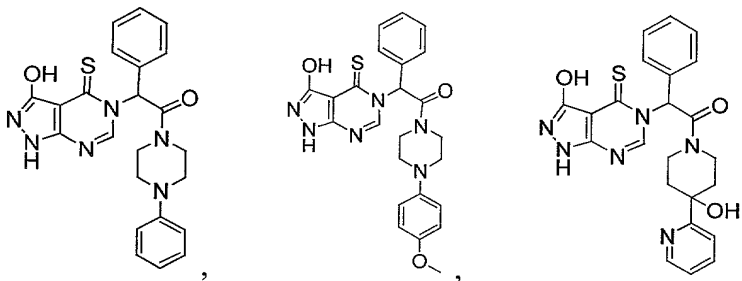
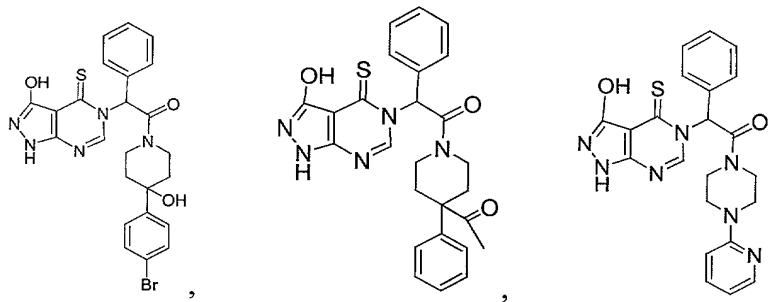
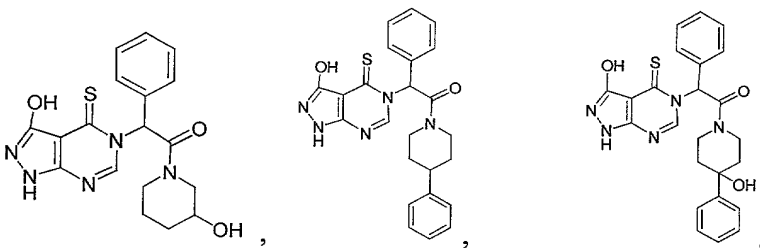
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and pharmaceutically acceptable salts thereof.

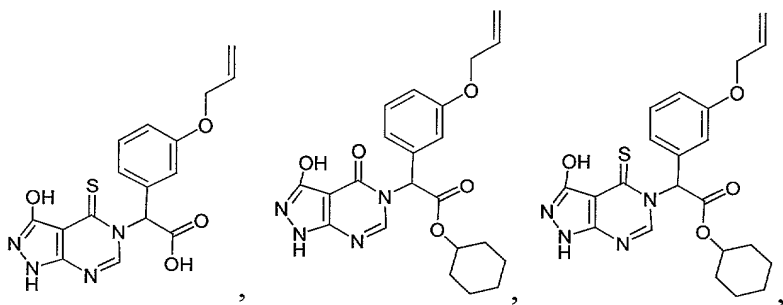
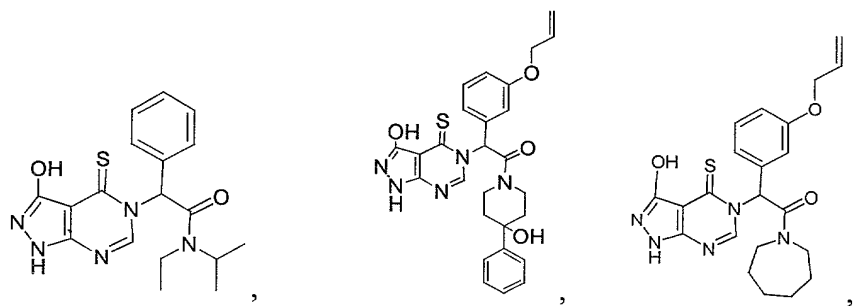
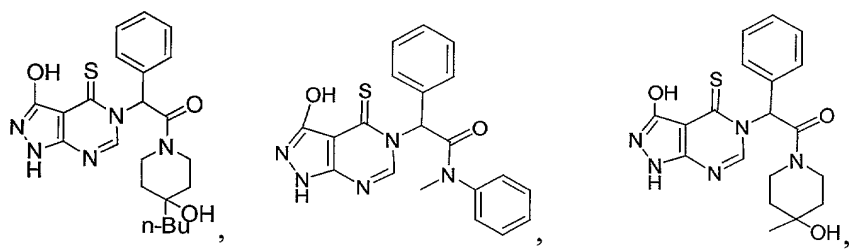
34. A compound selected from the group consisting of



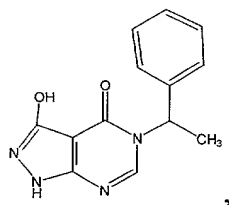
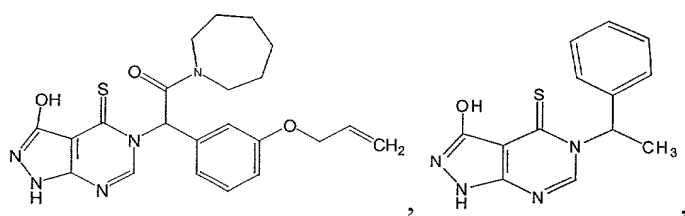
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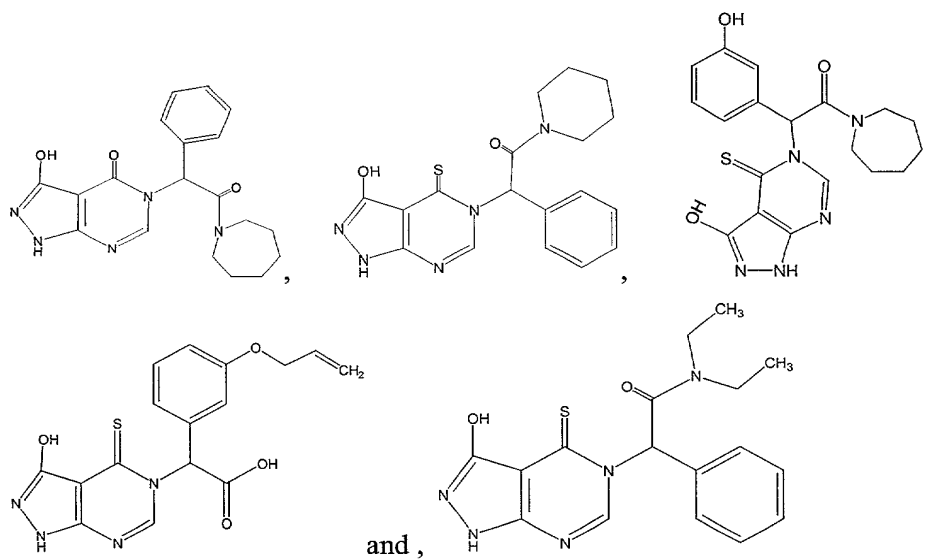
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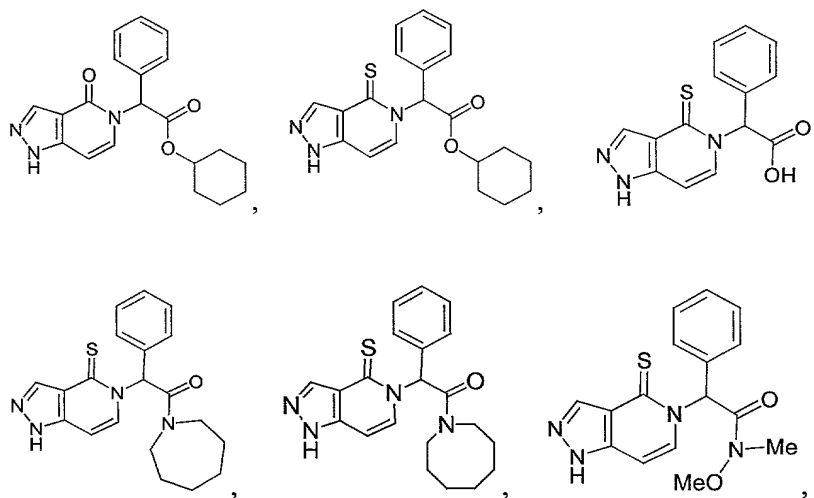


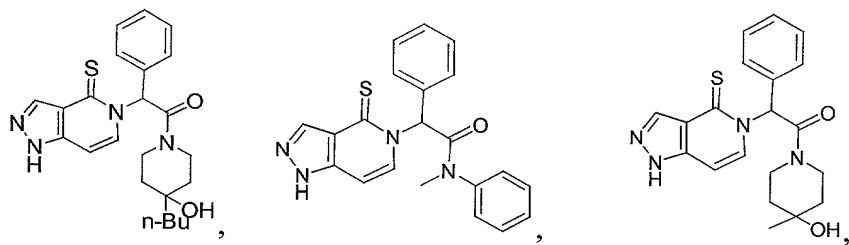
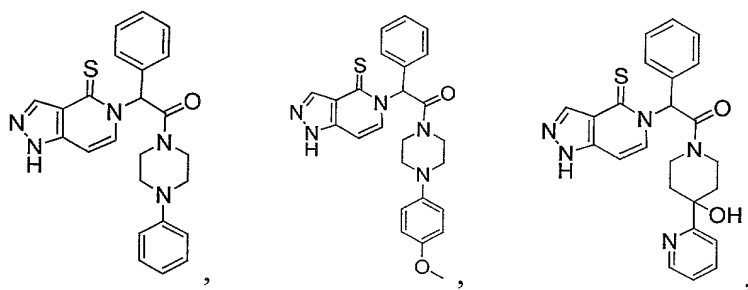
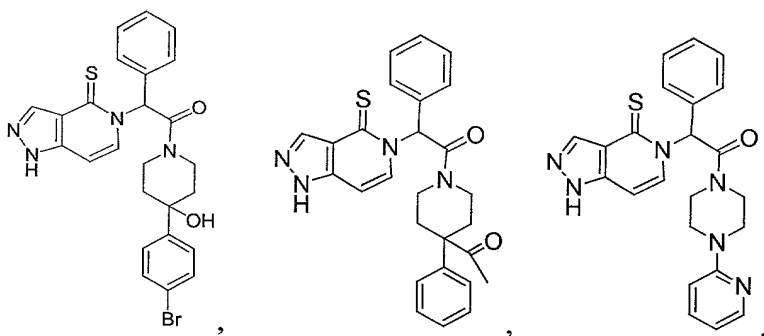
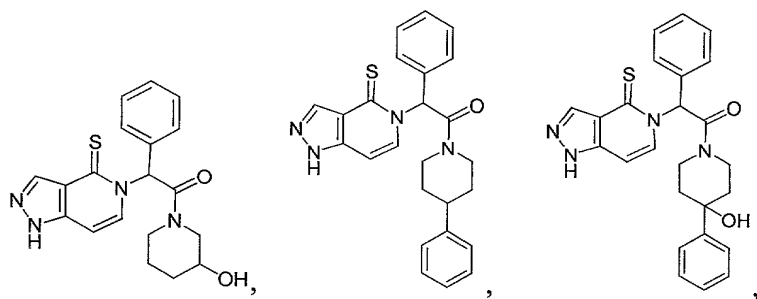
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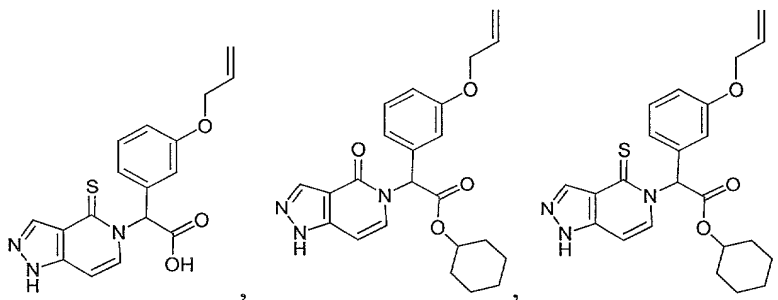
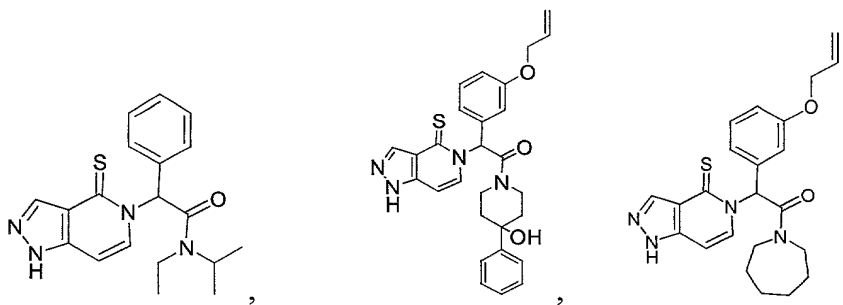


and pharmaceutically acceptable salts thereof.

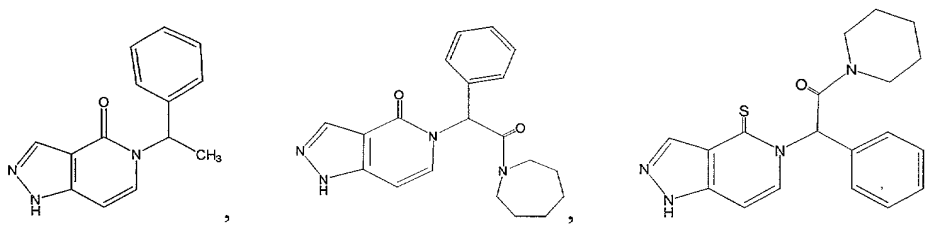
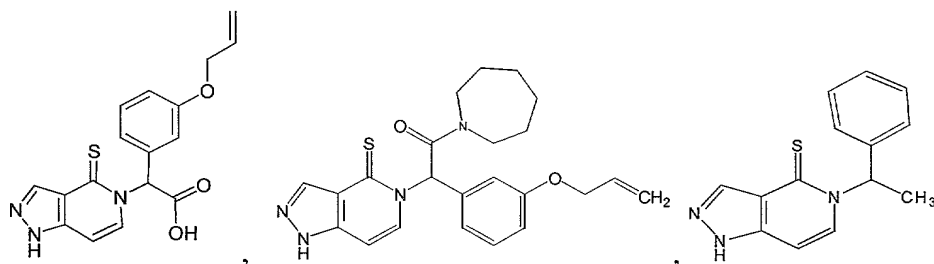
- 5 35. A compound selected from the group consisting of



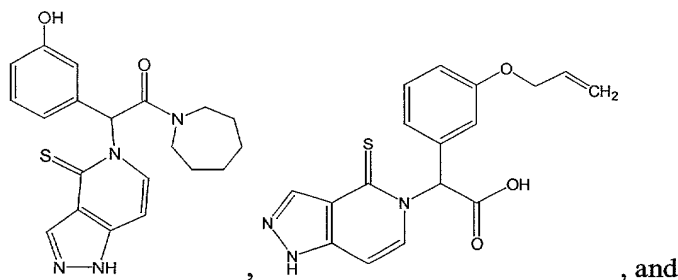




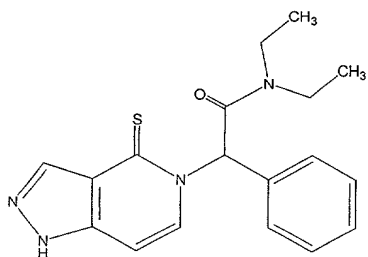
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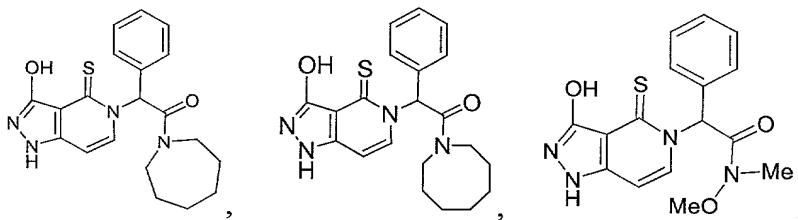
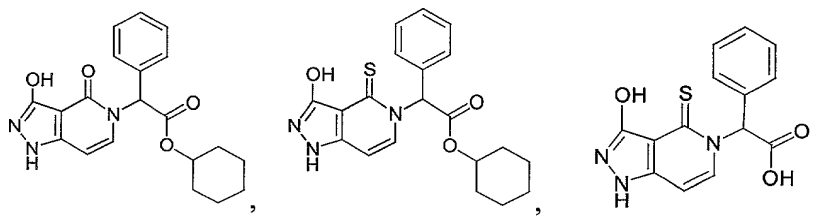
, and



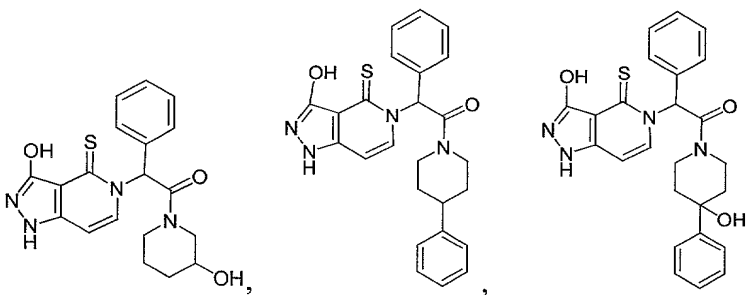
and pharmaceutically acceptable salts thereof.

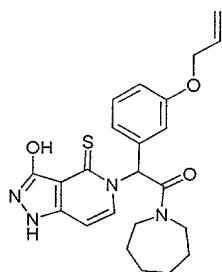
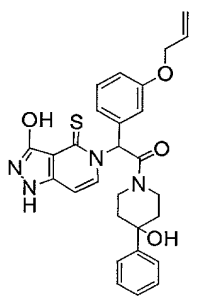
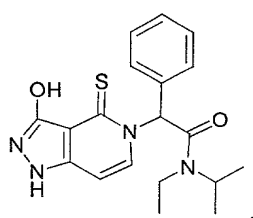
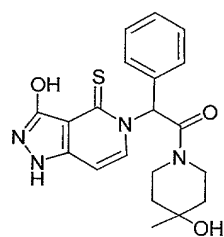
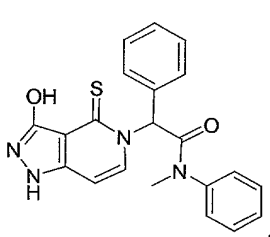
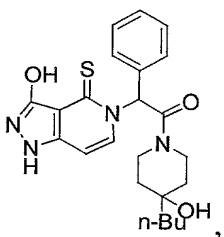
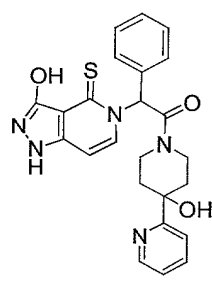
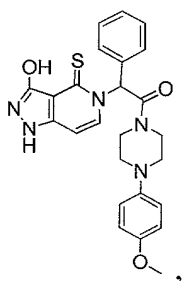
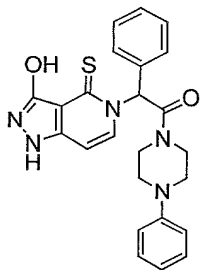
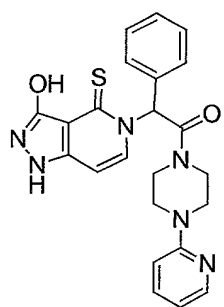
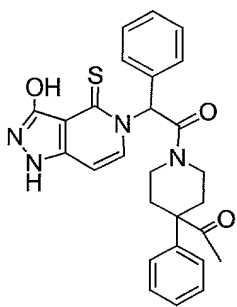
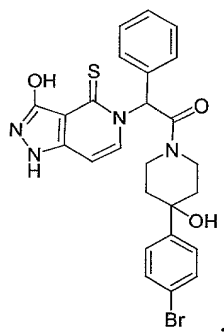
36. A compound selected from the group consisting of

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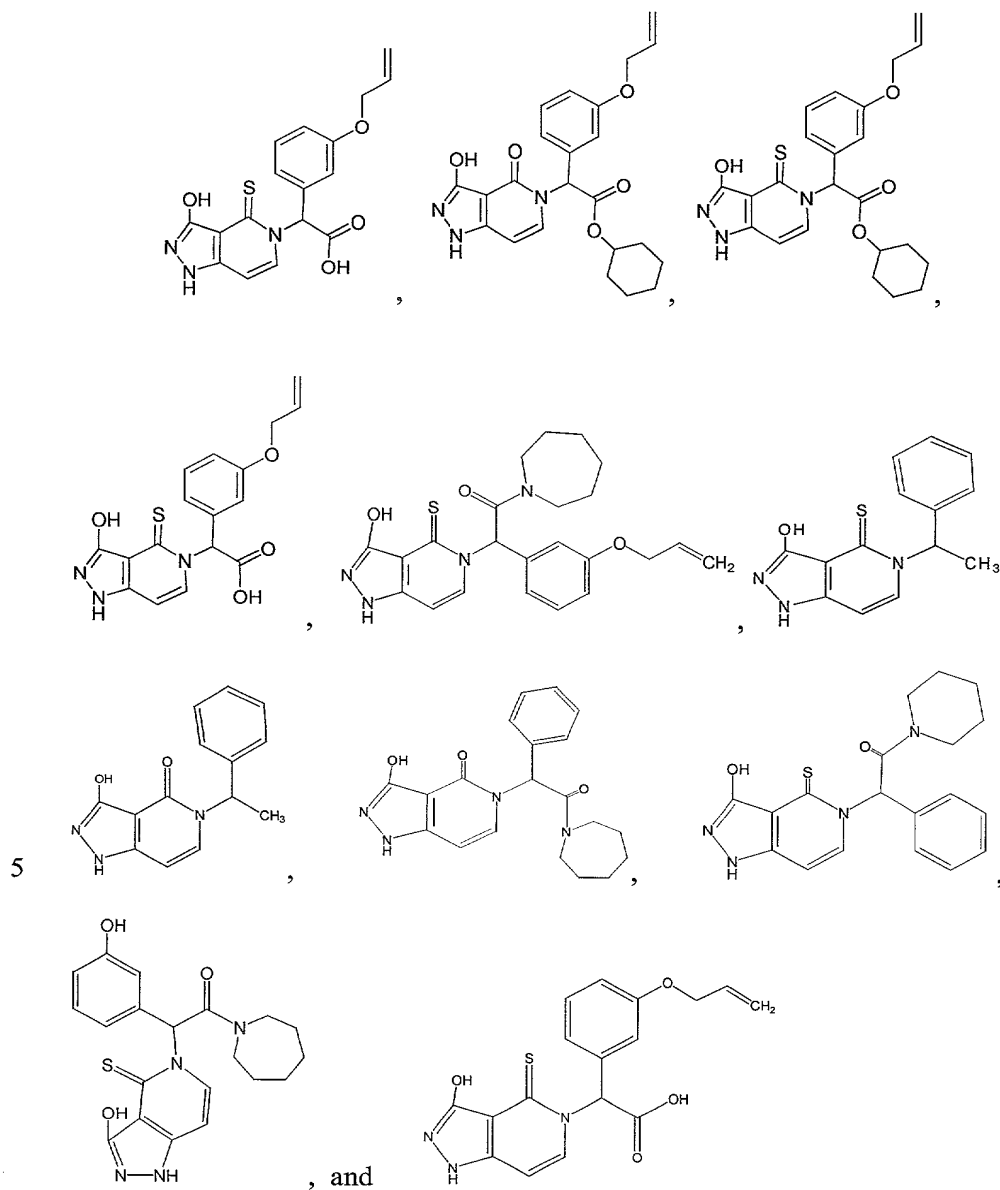


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and pharmaceutically acceptable salts thereof.

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37. A composition comprising:

a therapeutically effective amount of a compound or pharmaceutically acceptable salt, pharmaceutically acceptable prodrug or a pharmaceutically active metabolite of said compound according to claim 1; and
a pharmaceutically acceptable carrier, diluent, or vehicle therefore.

15

38. A composition comprising:

a therapeutically effective amount of a compound or pharmaceutically

acceptable salt according to claim 33; and
a pharmaceutically acceptable carrier, diluent, or vehicle therefore.

39. A composition comprising:

a therapeutically effective amount of a compound or pharmaceutically
acceptable salt according to claim 34; and

a pharmaceutically acceptable carrier, diluent, or vehicle therefore.

40. A composition comprising:

a therapeutically effective amount of a compound or pharmaceutically
acceptable salt according to claim 35; and

a pharmaceutically acceptable carrier, diluent, or vehicle therefore.

41. A composition comprising:

a therapeutically effective amount of a compound or pharmaceutically
acceptable salt according to claim 36; and

a pharmaceutically acceptable carrier, diluent, or vehicle therefore.

42. A method of treating a disease or condition mediated by ERAB,
HADH2 or amyloid- β in a mammal, comprising administering to a mammal in need
of such treatment a therapeutically effective amount of at least one compound,
pharmaceutically acceptable salt, pharmaceutically acceptable prodrug, or
pharmaceutically active metabolite as defined in claim 1.

43. A method according to claim 42, wherein said disease or condition is
Alzheimer disease.

44. A method according to claim 42, wherein said disease or condition is
dementia.

45. A method according to claim 42, wherein said disease is cancer.

46. A method of inhibiting or modulating an enzyme activity of ERAB or
HADH2, comprising contacting said enzyme with an effective amount of a
compound, pharmaceutically acceptable salt, pharmaceutically acceptable prodrug, or
pharmaceutically active metabolite defined in claim 1.

47. A method of inhibiting or modulating an enzyme activity of ERAB or
HADH2, comprising contacting said enzyme with an effective amount of a compound
or pharmaceutically acceptable salt defined in claim 33.

48. A method of inhibiting or modulating an enzyme activity of ERAB or
HADH2, comprising contacting said enzyme with an effective amount of a compound

or pharmaceutically acceptable salt defined in claim 34.

49. A method of inhibiting or modulating an enzyme activity of ERAB or HADH2, comprising contacting said enzyme with an effective amount of a compound or pharmaceutically acceptable salt defined in claim 35.

5 50. A method of inhibiting or modulating an enzyme activity of ERAB or HADH2, comprising contacting said enzyme with an effective amount of a compound or pharmaceutically acceptable salt defined in claim 36.

51. A compound or pharmaceutically acceptable salt as defined in claim 1, wherein the compound or pharmaceutically acceptable salt has an IC_{50} against ERAB
10 activity of less than or equal to 600 μM .

52. A compound or pharmaceutically acceptable salt as defined in claim 51, wherein the compound or pharmaceutically acceptable salt has an IC_{50} against ERAB activity of less than or equal to 50 μM .

53. A compound or pharmaceutically acceptable salt as defined in claim
15 51, wherein the compound or pharmaceutically acceptable salt has an IC_{50} against ERAB activity of less than or equal to 3.0 μM .

54. A method of treating Alzheimer disease or dementia in a mammal comprising administering to a mammal in need of such treatment a therapeutically effective amount of

20 at least one compound, pharmaceutically acceptable salt, pharmaceutically acceptable prodrug, or pharmaceutically active metabolite defined in claim 1; and

at least one agent selected from the group consisting of estrogen, NSAIDS, risperidone, a thienobenzodiazepine, ampakine, [N-(2,6-
25 dimethylphenyl)-2-(2-oxo-1-pyrrolidinyl)acetamide, DM9384, a cholinesterase inhibitor, donepezil hydrochloride, rivastigmine tartrate, galantamine, NGF, and metrifonate.